# TP115-350/351 HDMI Over Coax with IR

**User's Guide**

**Welcome!**

We greatly appreciate your purchase of the TP115-350/351 HDMI over Coax Transmitter/Receiver. We are sure you will find it reliable and simple to use. Superior performance for the right price, backed by solid technical and customer support is what Altinex has to offer.

We are committed to providing our customers with Signal Management Solutions® to the most demanding audiovisual installations at competitive pricing and we welcome you to join the ranks of our many satisfied customers throughout the world.

## 1. Precautions and Safety Warnings

Please read this manual carefully before using your TP115-350/351. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your TP115-350/351 and to prevent fire and shock hazards. Please read them carefully and heed all warnings.

### 1.1 General

- Qualified Altinex service personnel or their authorized representatives must perform all service.

### 1.2 Installation Precautions

- To prevent fire or shock, do not expose this unit to water or moisture. Do not place in direct sunlight, near heaters or heat-radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Handle the unit carefully. Dropping or jarring can cause damage.
- Do not pull any cables that are attached to the TP115-350/351.

### 1.3 Cleaning

- Clean only with a dry cloth. Never use strong detergents or solvents such as alcohol or thinner. Do not use a wet cloth or water to.

### 1.4 FCC Notice

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions found herein, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- Any changes or modifications to the unit not expressly approved by Altinex, Inc. could void the user's authority to operate the equipment.

## 2. Installation Procedures

Note: Download and read the entire online manual for detailed specifications and instructions.

Step 1. Connect the power adapter provided to the TP115-350 Transmitter and a working AC outlet. Verify the power LED is illuminated.

Step 2. Connect the DVD player (or other source) to the HDMI input on the transmitter. Make sure the source is set for 720p, 1080i, or 1080p. The TP115-350/351 do NOT support 480i or 480p.

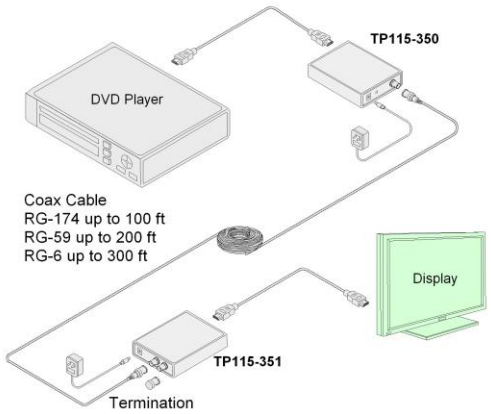
Step 3. Connect the power adapter provided to the TP115-351 Receiver and a working AC outlet. Verify the power LED is illuminated.

Step 4. Connect the transmitter to the receiver using high quality RG-6 coaxial cable. The signal quality of the image at the display depends on the length and quality of the cable. Video signals of 1080p are good up to 300 ft. (91 m).

Step 5. Connect the receiver HDMI output to the display input. From a single transmitter, connect up to 20 displays, 300 ft. apart each, using the receiver loop output to drive the coaxial input of another from a single transmitter.

Note: Always terminate the unused receiver output using the termination provided.

STANDARD CONFIGURATION

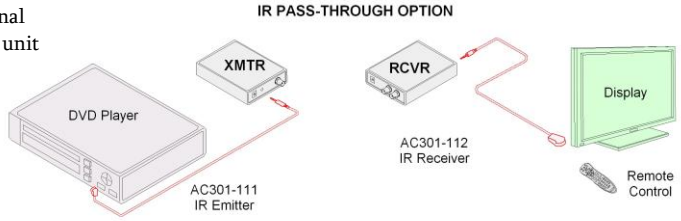



IR Control: Transmit a remote control signal from the display side to the source side using IR receiver and emitter supplied with the units. The IR feature supports single press functions like power, play, etc. Press and hold functions like volume can result in signal disruptions and loss of audio. If using multiple receivers, place the IR receiver on the unit nearest the transmitter in the chain and use only one IR receiver.

Step 1. Connect the IR emitter to the TP115-350 IR output and mount the emitter over the source (DVD, Blu-ray, etc.) receiving eye.

Step 2. Connect the IR receiver to the TP115-351 IR input and mount the receiving eye on or near the display.

IR PASS-THROUGH OPTION




Warning: The TP115-351 has a built-in IR receiver next to the HDMI input. Make sure the IR signal from the remote control cannot reach the TP115-351 or signal conflicts can occur.

## 3. Limited Warranty/Return Policies

Please see the Altinex website at www.altinex.com for details on warranty and return policies.



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#### 4. Technical Specifications

Specifications are subject to change. See www.altinex.com for up-to-date information.

| Features/Description | | TP115-350/351 Description |
|---|---|---|
| **TP115-350 Transmitter** | | |
| Inputs | Video Input | 19-pin HDMI F (1) |
| | Power, +5VDC | DC Jack (1) |
| Outputs | Digital Output | BNC F (1) |
| | IR Emitter | 3.5 mm F (1) |
| **TP115-351 Receiver** | | |
| Inputs | Digital Input | BNC F (1) |
| | Power, +5VDC | DC Jack (1) |
| | IR Extender In | 3.5 mm F (1) |
| Outputs | Video Output | 19-pin HDMI F (1) |
| **TP115-350 and TP115-351** | | |
| Compatibility | | |
| Signal Types | | HDMI, DVI, HDCP, 12-bit Deep Color |
| Resolutions Supported | | 720p, 1080i and 1080p (1280x720, 1920x1080) |
| Resolutions NOT Supported | | 480p, 480i |
| Special Features | | |
| Transmission Range at 1080p | | RG174 - 100 ft.<br>RG59 - 200 ft.<br>RG6 300 ft. (91 m) |
| Loop Output | | Up to 20 Receivers from a Single Transmitter |
| Agency Approvals | | |
| Power Supply | | UL/CE/CEC/CSA |
| Transmitter/Receiver | | CE/FCC |
| Accessories Included | | |
| IR Receiver (5 ft. cable) | | AC301-112 |
| IR Emitter (6 ft. cable) | | AC301-111 |
| Termination | | BNC M |
| Power Adapter | | +5 VDC, 1 A (1) |

Table 1. TP115-350/351 General

| Mechanical | TP115-350/351 Mechanical |
|---|---|
| Material/Color | Al/Black |
| Width body only<br>body + BNC connector | 3.90 in (99 mm)<br>4.70 in (119 mm) |
| Depth | 3.70 in (94 mm) |
| Height | 1.20 in (30 mm) |
| Weight each | 0.70 lb. (0.3 kg) |
| T° Operating | 0°C to 40°C |
| T° Storage | -10°C to +60°C |
| Humidity, Operating | 10-85% non-condensing |
| Humidity, Storage | 10-85% non-condensing |
| MTBF (calc.) | 38,000 hrs. |

Table 2. TP115-350/351 Mechanical

| Electrical | TP115-350/351 Electrical |
|---|---|
| **TP115-350 Transmitter** | |
| Video Input Signals | |
| Video/Audio/EDID/HDCP | HDMI |
| Output Signals | |
| Video/Audio/EDID/HDCP | Digitally Encoded |
| IR (to IR emitter) | Digital |
| Power | *(from adapter)* |
| Total Power | 4.25 W max. (0.85 A) |
| **TP115-351 Receiver** | |
| Video Input Signals | |
| Video/Audio/EDID/HDCP | Digitally Encoded |
| IR (from IR receiver) | Digital |
| Output Signals | |
| Video/Audio/EDID/HDCP | HDMI |
| Power | *(from adapter)* |
| Total Power | 3.75 W max. (0.75 A) |

Table 3. TP115-350/351 Electrical



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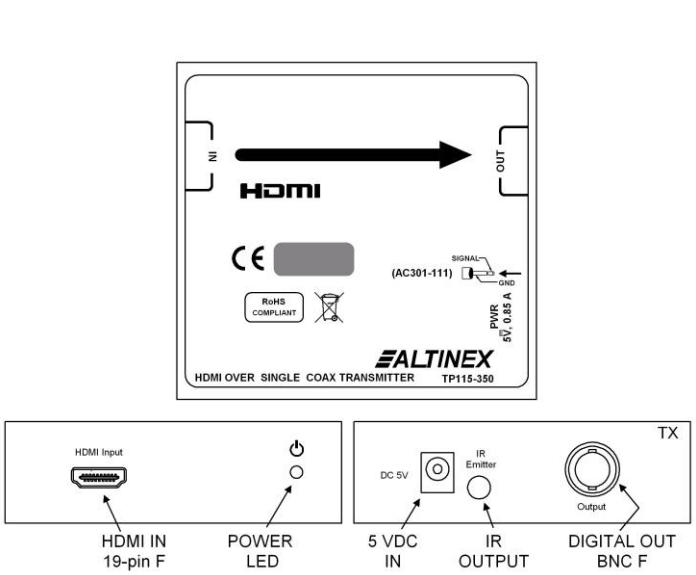
**5. About Your TP115-350 & TP115-351**

- Resolutions 1280x720, 1920x1080, 720p, 1080i, and 1080p (does not support 480i or 480p)
- Supports HDMI, DVI, 12-bit Deep Color, and HDCP
- IR pass-through (receiver to transmitter)
- Loop out for up to 20 receivers from single transmitter
- Up to 300 ft. (91 m) at 1080p

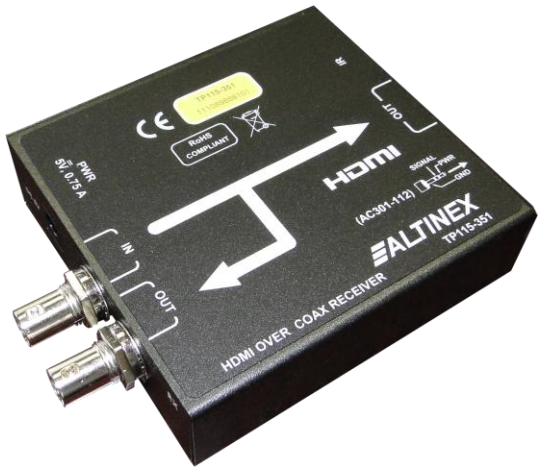
The TP115-350 and TP115-351 provide a means of transmitting HDMI signals up to 1080p over long distances by means of a single RG-6 coaxial cable. The TP115-350 Transmitter converts the HDMI video and audio signals into a digital format for transmission over the coaxial cable. The TP115-351 Receiver converts the coaxial signal back into standard HDMI format for connection to a display, TV, or other device. The transmitter/receiver pair supports HDMI, DVI, and 12-bit Deep Color as well as HDCP.

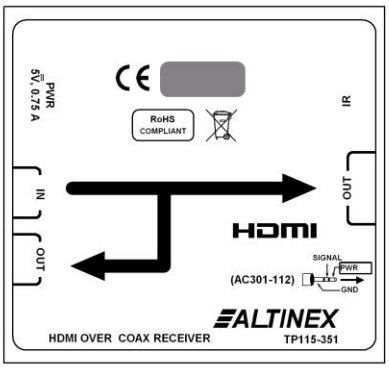
In addition to HDMI transmission, the TP115-350 TP115-351 pair allows for a remote control's IR signal to pass from the receiver back to the transmitter in order to control the video source (DVD player, Blu-ray, etc.) from the display location. The IR capability is present in all units and supports single press functions like power, play, stop, etc.

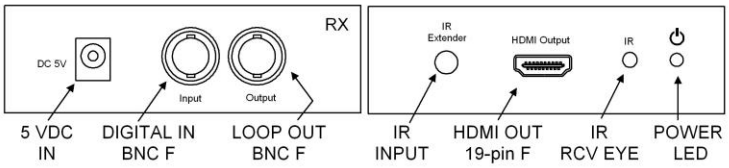
Each TP115-351 Receiver has an additional coaxial output that can be used as the input by another receiver in the same area. Note that the receiver coaxial output can transmit the same distance as the transmitter main output.







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**6. Application Diagrams**

**Diagram 1: Typical Setup**

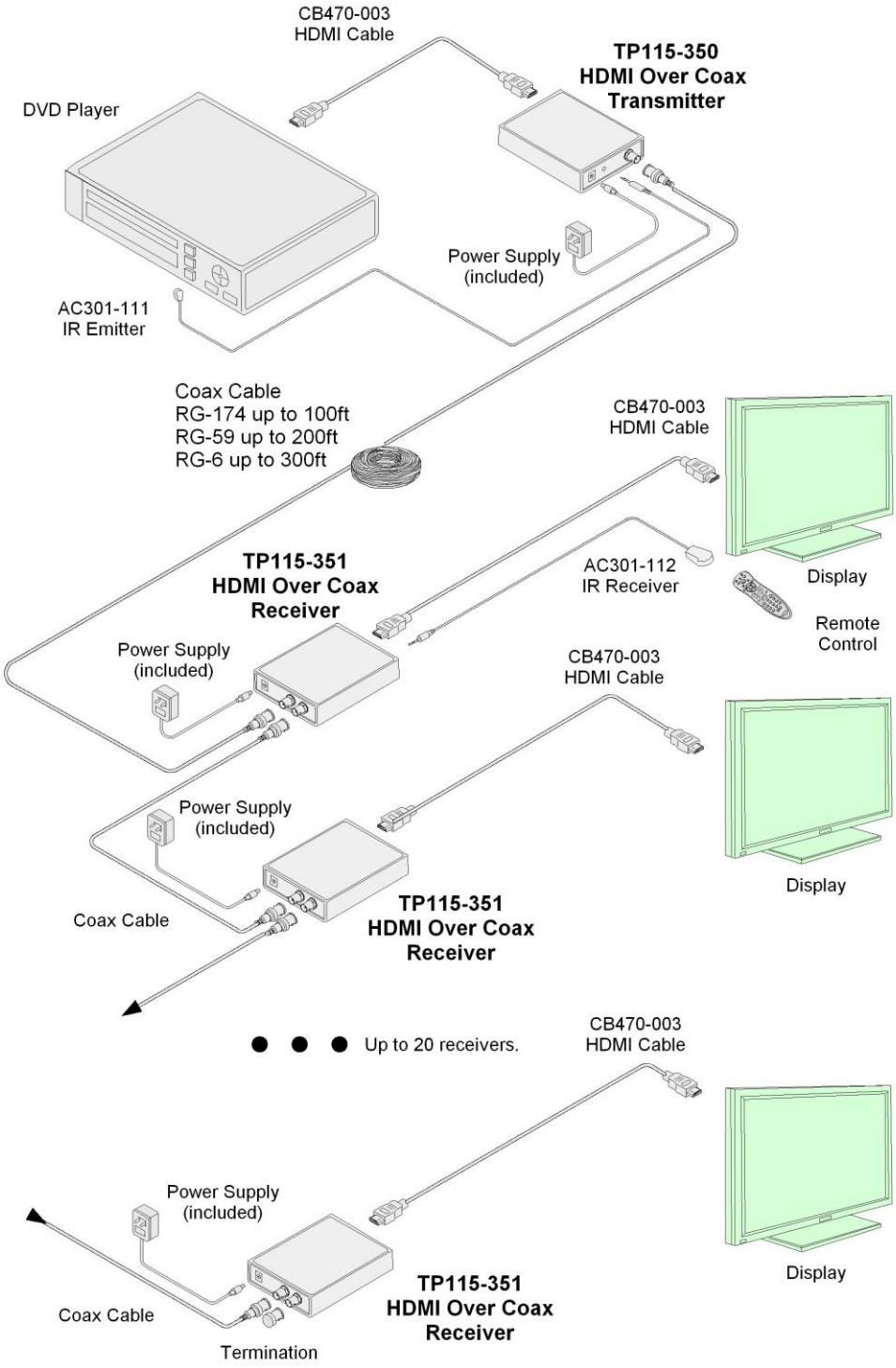
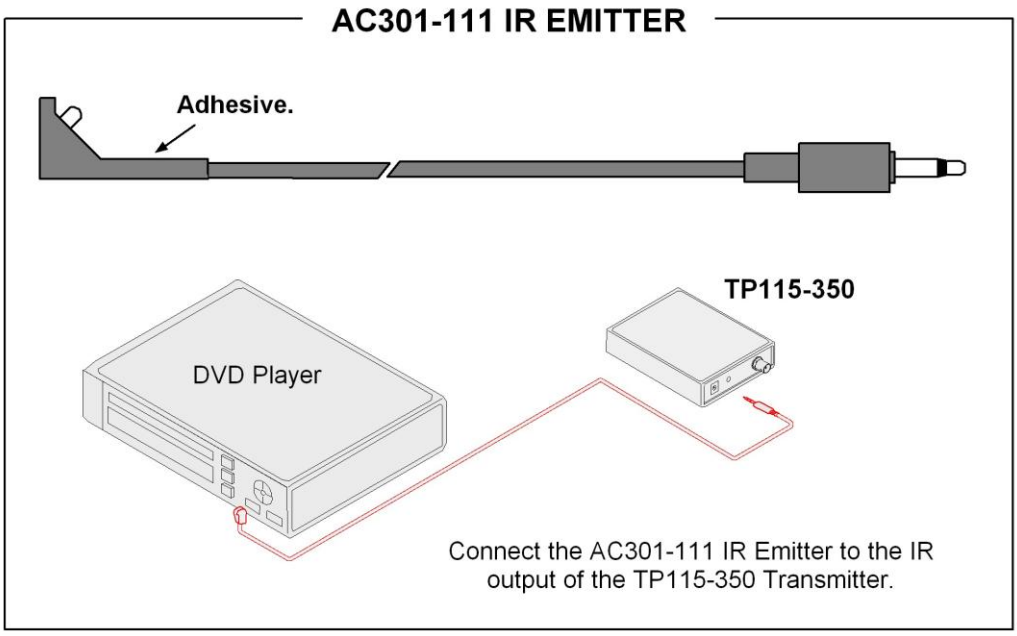


**Diagram 2: Accessories**



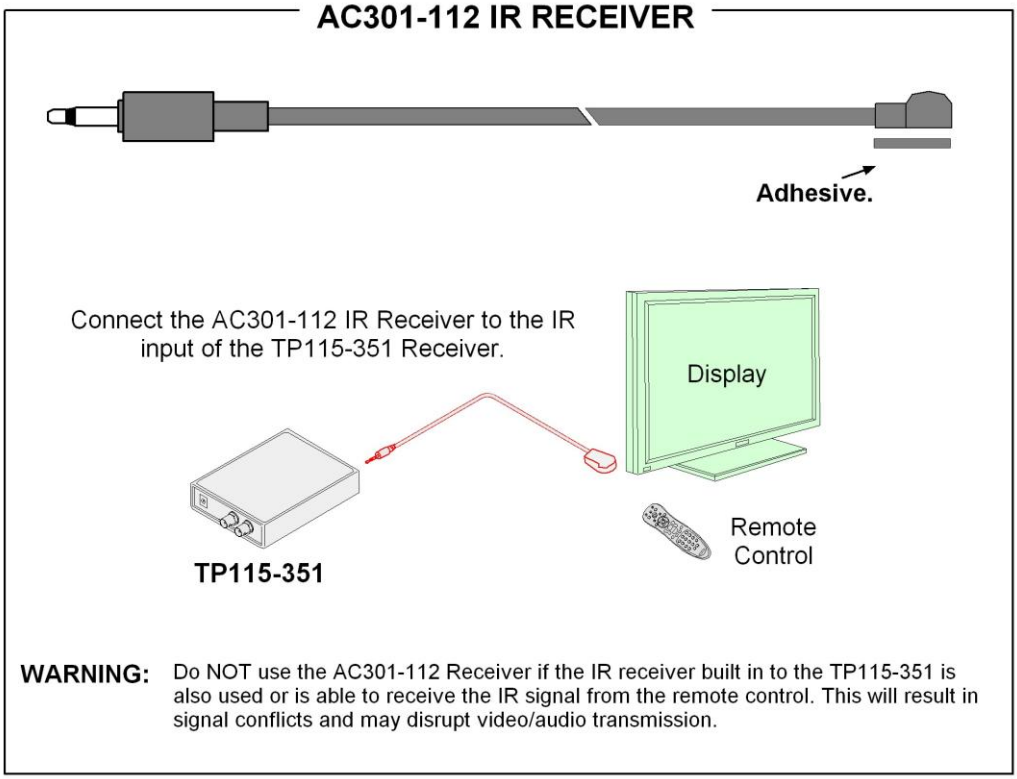






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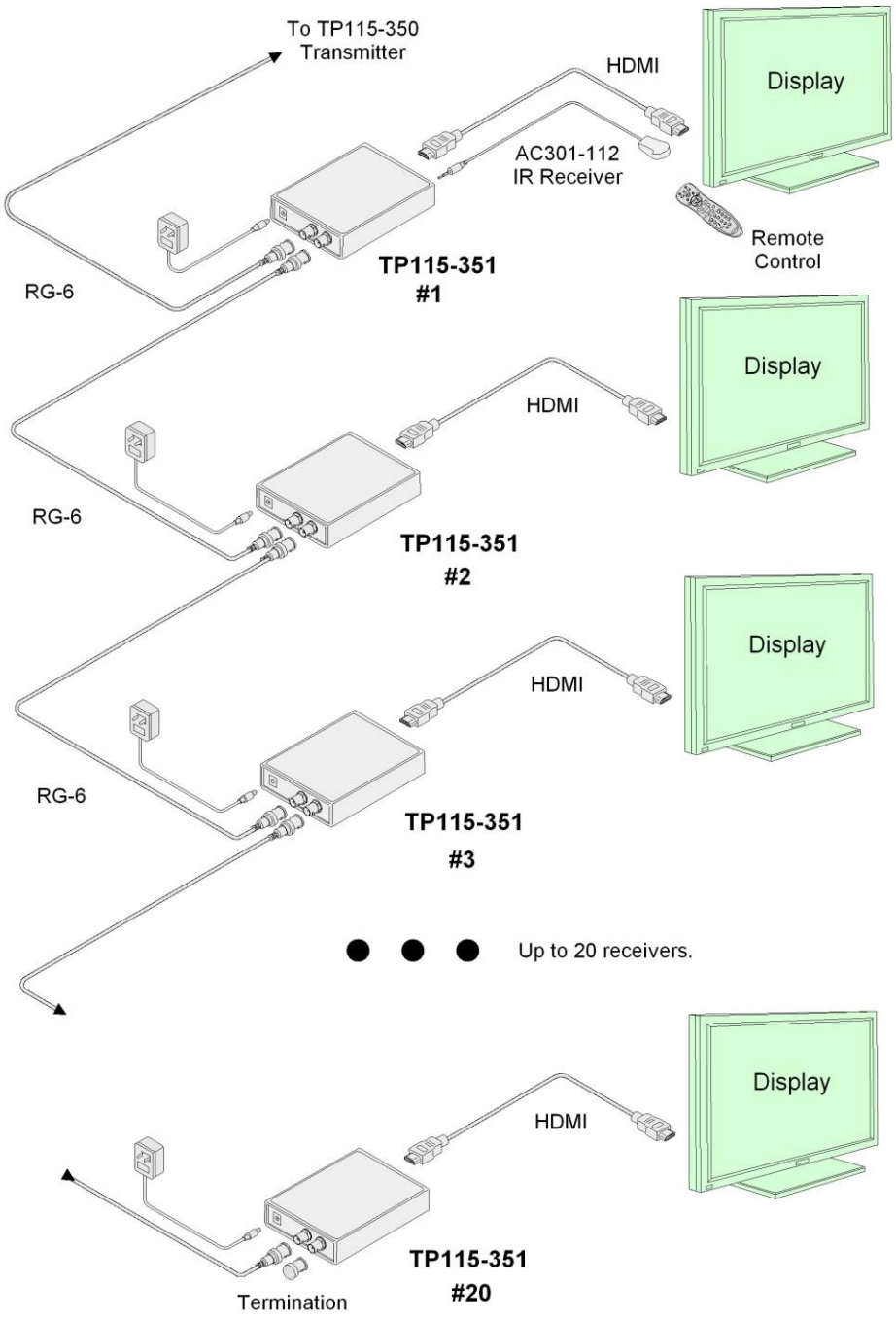
**Diagram 3: Multiple Receivers**




**IMPORTANT:** The IR receiver (AC301-112) should be placed on the receiver that is closest to the transmitter in the chain.

## 7. Operation

### 7.1 Getting Started

The TP115-350 and TP115-351 do not require any adjustments for optimum performance. Once connected, the transmitter and receiver will work trouble free without user intervention.

### 7.2 Using IR Control

There are 2 options for IR transmission; both require the AC301-111 IR Emitter to be connected to the IR Emitter output of the TP115-350 Transmitter with the emitter covering the receiving on the source; DVD, Blu-ray, etc. See Diagram 2.

WARNING: Do NOT use both methods! This will result in signal conflicts that can disrupt video/audio transmission as well as rendering the IR signal invalid.

#### 7.2.1 Accessory AC301-112 IR Receiver cable

Connect the IR Receiver into the TP115-351 Receiver's IR Extender port. Place the receiving end on or near the display where users typically aim the remote control. The receiver can be placed elsewhere is necessary.

#### 7.2.2 Built-in IR Receiver (eye) on TP115-351

The TP115-351 has a built-in IR receiver next to the Power LED. This IR receiver can be used in place of the above method if the TP115-351 is placed so that the remote control can be aimed at the receiving eye.

### 7.3 Multiple Receivers

A single transmitter can be used to drive several receivers using the loop output of the receivers. The loop output of one receiver connects to the main input of another receiver; up to 20 receivers can be connected in this fashion. The loop out connector is located next to the main input connector on the receiver. See Diagram 3 for details.

WARNING: If using an IR receiver to control the video at the source, place the IR receiver on the receiver nearest the transmitter in the chain. Depending on the cable quality and cable length between receivers, the IR receiver may be placed on the second or third receiver in the chain.



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### 8. Troubleshooting Guide

We have carefully tested and have found no problems in the supplied TP115-350/351. However, we would like to offer suggestions for the following:

| **Switcher** | |
|---|---|
| **Symptom** | **Resolution** |
| LED Is OFF | 1. Make sure the unit is plugged into a working AC outlet and the DC plug is inserted all the way into the switcher.<br>2. Use only the power adapter provided. |
| No Display on Projector | 1. Check the source and make sure there is a signal present.<br>2. Make sure the display has power and is turned on.<br>3. Try setting the output resolution of the source to a lower value.<br>Note: If using a PC/laptop as the source, the resolution must be set to 1280x720 or 1920x1080. |
| Poor Output Image | 1. Make sure the BNC termination is connected to the unused output on the receiver.<br>2. Make sure there are no sharp bends in the RG-6 cable.<br>3. Check the quality of the grounding on the RG-6 BNC connectors.<br>4. Try setting the output resolution of the source to a lower value.<br>Note: If using a PC/laptop as the source, the resolution must be set to 1280x720 or 1920x1080. |
| Intermittent Image | 1. Make sure the BNC termination is connected to the unused output on the receiver.<br>2. Adjust the source to a lower resolution. If the cable is too long or of poor quality, it may be possible to display a lower resolution. |
| No Audio | 1. Make sure the volume on the display (or amplifier) is turned on and set to a normal level.<br>2. Some laptops require the HDMI audio to be enabled. This can be done through the audio setup objects located in the Control Panel.<br>3. If the audio signal was lost due to excessive IR transmissions, reset power to either the TP115-350 or TP115-351.<br>The IR transmission between the transmitter and receiver is not designed to support sustained IR transmission like that encountered when pressing and holding the volume button on a remote control. It is designed to support single press functions like PLAY, STOP, INPUT, etc. that do not require press and hold. |
| IR Not Responding | 1. Make sure the AC301-111 IR Emitter is plugged all the way into the TP115-350 and that the emitter eye is placed directly over the source (DVD, Blu-ray, etc.) receiving eye.<br>2. If using the AC301-112 IR Receiver, make sure the signal from the remote control is not visible to the TP115-351 Receiver. If necessary, cover the receiving eye on the TP115-351.<br>3. If multiple receivers are in use, make sure the IR receiver is plugged into the receiver nearest the transmitter in the chain. |